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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|------------------------|------------------|
| 10/722,004 | 11/25/2003 | Steven K. Waisanen | 063740-9130 | 6977 |
| 23409 | 7590 | 09/25/2006 | | EXAMINER |
| MICHAEL BEST & FRIEDRICH, LLP 100 E WISCONSIN AVENUE MILWAUKEE, WI 53202 | | | ROSENBERGER, RICHARD A | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2877 | |

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/722,004 | WAISANEN, STEVEN K. | |
| | Examiner | Art Unit | |
| | Richard A. Rosenberger | 2877 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 7/10/2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 21-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 21-35 is/are allowed.
- 6) Claim(s) 36-48 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

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1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 36-48 are rejected under 35 U.S.C. 101 because the final steps of merely analyzing in claim 36 and calculating in claim 48 do not appear to be sufficient to constitute a tangible result, since the outcomes of the analyzing and calculating steps are not being claimed in a disclosed practical application nor is it outcome being made available in such a manner that its usefulness in a disclosed practical application can be realized. See OG Notices: 22 November 2005, "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility".

Claims 37-44 and 46-48, dependent from claims 36 and 45, are similarly rejected because none of these claims add to their parent claim the required practical application or make the outcome available in such a manner that its usefulness in a disclosed practical application can be realized.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 45-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plasser et al (US 3,545,384) in view of Miyahara (US 4,904,081).

Plasser et al, in particular in figure 6, shows a method in which a light source (18; column 6, lines 20-21) is mounted on a rail system (see 13), and supporting a car (1) on the rails system (see 2) for movement along the rail system. A light beam is emitted from the light source (18), and the position of the light spot on a screen is used to determine whether adjustment of the rail system is necessary. Although the reference does not appear to specifically state that the "sender of a beam of electromagnetic radiation" (18) may be a laser, those in the art would have recognized that a laser would be a suitable means for projecting such a beam of light; lasers and their characteristics that make them suited for such an application are so well known that official notice is sufficient; see also Miyahara, which uses a laser to project a light beam in a surveying system.

Plasser teaches using an automatic detection of the light beam (column 6, lines 20-25), but uses a different arrangement to so detect the beam. Miyahara shows a known surveying system which has a screen (4) onto which a light beam is directed, with a device (5) for capturing an image of the screen including the light spot, and a computer (15) for receiving the image and determining the position of the spot on the screen to determine the coordinated of the light spot on the screen to determine the surveying information desired (column 5, lines 50- 64)

It would have been obvious to use this known light spot detecting means in a system such as shown by Passer et al because it is a known manner of detecting such

light spot positional information and is mechanically simpler than the means shown by Plasser et al.

As for claims 46 and 48, the Miyahara reference does not mention that the analysis of the position of the light spot may include the determination of the centroid. It would have been obvious to use such a well-known determination to determine accurately the position of the light spot; the instant specification treats the centroid analysis as so well known and it is such a well-known technique official notice is sufficient.

As for claim 48, making such measurements at regular distance intervals of the position of the car of Plasser et al would have been obvious.

5. Claims 36, 37, and 39-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plasser et al (US 3,545,384) in view of Miyahara (US 4,904,081) as applied above, and further in view of Falb (US 6,314,650).

See above.

As in claim 36, the use of a self-leveling laser in a system as above would have been obvious because this would help maintain accuracy and make the overall system more automatic. Falb shows such self-leveling laser systems are known in the art; see column 6, lines 42-45 for a discussion of a level sensor included in the self-leveling laser.

See the discussion above for a discussion of the subject matter of claim 37 in particular with regard to the Miyahara reference. See above for a discussion of the use of a centroid, as in claim 39.

Centering the rail car of Plasser et al would have been obvious because having the various components properly aligned would increase the accuracy of the measurements.

As for claims 41, controlling the car from any convenient location would have been obvious.

As in claim 42, clearly the image data is transmitted in the system of the combination of Plasser et al and Miyahara as set forth above.

As in claim 43, including an odometer of the like in the system of Plasser to help maintain the surveying information accuracy would have been obvious; those in the art would have recognized that it is important to know where the various measurements have been made in order to know where repairs of the like must be made. As in claim 44 it is at least obvious to make more than one measurement at different locations along the track.

6. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Plasser et al (US 3,545,384) in view of Miyahara (US 4,904,081) and Falb (US 6,314,650) as applied to claim 37 above, and further in view of Pojda (US 56,415,208).

It would have been obvious to include a bandpass filter in the system of Miyahara because, as discussed by Pojda (column 5, lines 1-3), such filters are known to improve the detection of the laser beam.

7. The art does not appear to teach the mounting structure of claim 21; thus claims 21-35 appear to be allowable.

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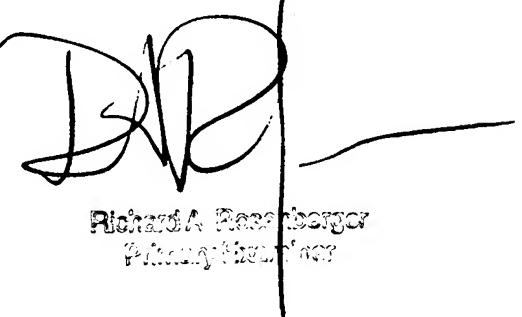
8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard A Rosenberger whose telephone number is (571) 272-2428. The examiner can normally be reached on Monday through Friday during the hours of 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

R. A. Rosenberger
14 September 2006



Richard A. Rosenberger
Primary Examiner